

CLAIMS

1. A composition comprising the following components:

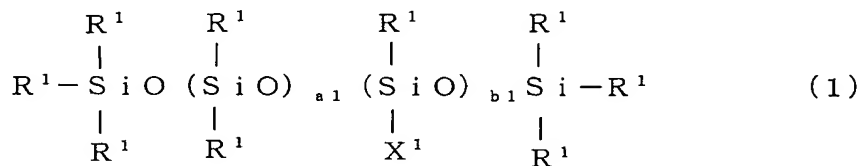
100 parts by weight of an organopolysiloxane (A),

5 50 to 1,000 parts by weight of a polyvinyl alcohol homopolymer or copolymer (C),

100 to 100,000 parts by weight of water (E), and

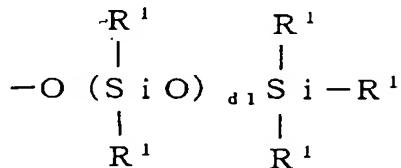
0.1 to 100 parts by weight of a surfactant (F), wherein component (A) is an organopolysiloxane (A1) represented by the following average compositional formula (1):

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wherein each R^1 may be same or different and is a group having 1 to 20 carbon atoms selected from the group consisting of alkyl groups, alicyclic groups, and aryl groups, whose hydrogen atoms bonded to the carbon atoms may partly be replaced with a halogen atom or a cyano group, and X^1 is the group represented by the following formula:

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wherein $a1$, $b1$ and $d1$ are such numbers that the organopolysiloxane (A1) has a viscosity at 25 degrees C of from 0.05 to 500 Pa·s, and $b1$ and $d1$ may be zero.

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2. A composition comprising the following components:

100 parts by weight of an organopolysiloxane (A),

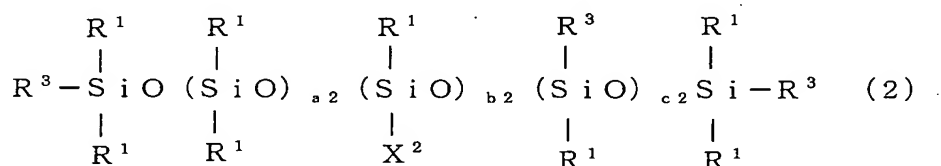
0.1 to 30 parts by weight of a crosslinking agent (B),

50 to 1,000 parts by weight of a polyvinyl alcohol homopolymer or
5 copolymer (C),

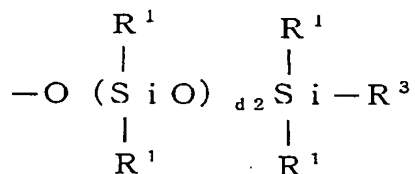
0 to 5 parts by weight, as an active ingredient, of a catalyst (D),

100 to 100,000 parts by weight of water (E), and

0.1 to 100 parts by weight of a surfactant (F), wherein component
(A) is an organopolysiloxane (A2) having at least two hydroxyl groups
10 and represented by the following average compositional formula (2):



wherein each R^1 may be same or different and is a group having 1
to 20 carbon atoms selected from the group consisting of alkyl groups,
alicyclic groups, and aryl groups, whose hydrogen atoms bonded to
15 the carbon atoms may partly be replaced with a halogen atom or a cyano
group, R^3 is a hydroxyl group, and X^2 is the group represented by the
following formula:



wherein a_2 , b_2 , c_2 and d_2 are such numbers that the
20 organopolysiloxane (A2) has a viscosity at 25 degrees C of from 0.05
to 500 Pa·s, and b_2 , c_2 and d_2 may be zero, and
component (B) is an organopolysiloxane (B2) having at least three

SiH or hydrolyzable groups per molecule.

3. The composition according to claim 2, wherein the organopolysiloxane (B2) is represented by the following formula:

5 $R^1_f H_g SiO_{(4-f-g)/2}$, or

$R^1_f W_g SiO_{(4-f-g)/2}$

wherein R^1 is as defined above, W is a hydrolyzable group, f and g are numbers with $0 \leq f \leq 3$, $0 < g \leq 3$, and $1 \leq f+g \leq 3$.

10 4. The composition according to claim 3, wherein W is at least one selected from the group consisting of alkoxy groups, acyloxy groups, amino groups, amido groups and oxime groups.

5. A composition comprising the following components:

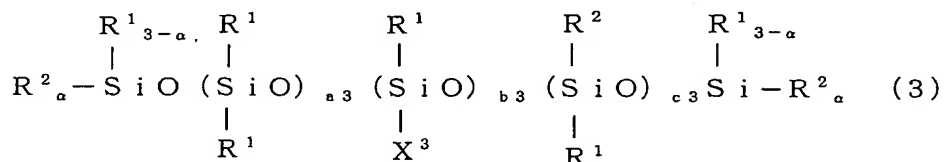
15 100 parts by weight of an organopolysiloxane (A),
 0.1 to 30 parts by weight of a crosslinking agent (B),
 50 to 1,000 parts by weight of a polyvinyl alcohol homopolymer or copolymer (C),
 0 to 5 parts by weight, as an active ingredient, of a catalyst (D),
 20 100 to 100,000 parts by weight of water (E), and
 0.1 to 100 parts by weight of a surfactant (F), wherein component (A) consists of the organopolysiloxane (A1) as defined above and the organopolysiloxane (A2) as defined above, and (B) is the organopolysiloxane (B2) as defined above.

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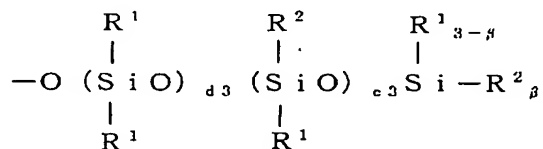
6. A composition comprising the following components:

100 parts by weight of an organopolysiloxane (A),
 0.1 to 30 parts by weight of a crosslinking agent (B),
 50 to 1,000 parts by weight of a polyvinyl alcohol homopolymer or
 30 copolymer (C),

0 to 5 parts by weight, as an active ingredient, of a catalyst (D),
 100 to 100,000 parts by weight of water (E), and
 0.1 to 100 parts by weight of a surfactant (F), wherein component
 (A) is an organopolysiloxane (A3) having at least two alkenyl groups
 5 and represented by the following formula (3):



wherein each R^1 may be same or different and is a group having 1
 to 20 carbon atoms selected from the group consisting of alkyl groups,
 alicyclic groups, and aryl groups, whose hydrogen atoms bonded to
 10 the carbon atoms may partly be replaced with a halogen atom or a cyano
 group, R^2 is an alkenyl group and X^3 is the group represented by the
 following formula:



wherein a_3 , b_3 , c_3 , d_3 and e_3 are such numbers that the
 15 organopolysiloxane (A3) has a viscosity at 25 degrees C of from 0.05
 to 500 Pa·s, and b_3 , c_3 , d_3 and e_3 may be zero, and α and β are integers
 of from 0 to 3 and

component (B) is an organohydrogenpolysiloxane (B3) having at least
 three SiH groups per molecule.

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7. A composition according comprising the following components:
 100 parts by weight of an organopolysiloxane (A),

0.1 to 30 parts by weight of a crosslinking agent (B),
50 to 1,000 parts by weight of a polyvinyl alcohol homopolymer or
copolymer (C),
0 to 5 parts by weight, as an active ingredient, of a catalyst (D),
5 100 to 100,000 parts by weight of water (E), and
0.1 to 100 parts by weight of a surfactant (F), wherein component
(A) consists of the organopolysiloxane (A1) as defined above and the
organopolysiloxane (A3) as defined above, and
(B) is the organopolysiloxane (B3) as defined above.

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8. The composition according to any one of claims 1 to 7, wherein
the composition further contains a silane (G) containing a hydrolyzable
group and/or a condensate thereof in an amount of 1 to 250 parts by
weight.

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9. The composition according to claim 8, wherein the component (G)
has at least two hydrolyzable groups per molecule selected from the
group consisting of alkoxy groups, acyloxy groups, and oxime groups.

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10. The composition according to any one of claims 1 to 7, wherein
the component (C) is a polyvinyl alcohol copolymer of a vinyl acetate
monomer with a co-monomer of 5 mole % or smaller based on a total
amount of the monomer and the co-monomer.

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11. The composition according to claim 10, wherein the co-monomer
is at least one selected from the group consisting of acrylic acid
and derivatives thereof, methacrylic acid and derivatives thereof,
styrene and derivatives thereof, alkenes having 4 carbon atoms, maleic
anhydride and vinyl chloride.

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12. The composition according to any one of claims 1 to 7, wherein the component (C) is at least one kind of polyvinyl alcohol homopolymer having a viscosity in a 4% aqueous solution at 20 degrees C of 2 to 80 mPa·s and a degree of saponification of from 80 to 99.5 mole%.

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13. A paper treatment agent comprising the composition according to any one of claims 1 to 7.

14. Paper treated with the paper treatment agent according to claim

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